

CLAIMS

1. A pattern recognizing device for classifying the feature distribution of input data into any of the stated number of models, comprising:

extracting means for extracting the pattern of said input data as the feature distribution;

storing means for storing said stated number of models;

classifying means for classifying the feature distribution that has been extracted by said extracting means into any of said stated number of models; and

generating means for generating said model that corresponds to such a state that said data do not exist, on the basis of the noise that has been input at the time just preceding the inputting of said data, and for updating that which is corresponding to it and is stored in said storing means.

2. The pattern recognizing device of claim 1, wherein

in the case where the feature distribution of such a state that said data do not exist, and the probability distribution of said model that corresponds to such a state that said data do not exist are normal distribution, said generating means generate the expected value of said model that corresponds to such a state that said data do not exist, as the mean of the expected values that correspond to the respective components of the feature distribution of such a state that said data

do not exist, and generate the variance of said model that corresponds to such a state that said data do not exist, as the mean of the variances that correspond to the respective components of the feature distribution of such a state that said data do not exist.

3. The pattern recognizing device of claim 1, wherein

in the case where the feature distribution of such a state that said data do not exist, and the probability distribution of said model that corresponds to such a state that said data do not exist are normal distribution, said generating means generate the expected value and the variance of said model that corresponds to such a state that said data do not exist, by the use of the mean of the expected values that correspond to the respective components of the feature distribution of such a state that said data do not exist.

4. The pattern recognizing device of claim 1, wherein

in the case where the feature distribution of such a state that said data do not exist, and the probability distribution of said model that corresponds to such a state that said data do not exist are normal distribution, said generating means generate the probability distribution of said model that corresponds to such a state that said data do not exist, on the basis of the linear combination of the statistics that correspond to the respective components of the feature distribution of such a state that said data do not exist.

5. The pattern recognizing device of claim 1, wherein

in the case where the feature distribution of such a state that said data do not exist, and the probability distribution of said model that corresponds to such a state that said data do not exist are normal distribution, said generating means generate the probability distribution of said model that corresponds to such a state that said data do not exist, on the basis of the sum of the statistical populations that correspond to the respective components of the feature distribution of such a state that said data do not exist.

6. A pattern recognizing method of a pattern recognizing device for classifying the feature distribution of input data into any of the stated number of models, said method comprises:

an extracting step of extracting the pattern of said input data as the feature distribution;

a storing step of storing said stated number of models;

a classifying step of classifying the feature distribution that has been extracted on said extracting step into any of said stated number of models; and

a generating step of generating said model that corresponds to such a state that said data do not exist, on the basis of the noise that has been input at the time just preceding the inputting of said data, and then updating the corresponding one that has been stored on said storing step.

7. A providing medium for providing a program to a pattern recognizing device for classifying the feature distribution of input data into any of the stated number of models, said program can be read by a computer which causes the pattern recognizing device to execute the processing that includes an extracting step of extracting the pattern of said input data as the feature distribution, a storing step of storing said stated number of models, a classifying step of classifying the feature distribution that has been extracted on said extracting step into any of said stated number of models, and a generating step of generating said model that corresponds to such a state that said data do not exist, on the basis of the noise that has been input at the time just preceding the inputting of said data, and then updating the corresponding one that has been stored on said storing step.